

## ABSTRACT OF THE DISCLOSURE

A method of forming buried cavities in a wafer of monocrystalline semiconductor material with at least one cavity formed in a substrate of monocrystalline semiconductor material by timed TMAH etching silicon; covering the cavity with a material inhibiting epitaxial growth; and growing a monocrystalline epitaxial layer above the substrate and the cavities. Thereby, the cavity is completely surrounded by monocrystalline material. Starting from this wafer, it is possible to form a thin membrane. The original wafer must have a plurality of elongate cavities or channels, parallel and adjacent to one another. Trenches are then excavated in the epitaxial layer as far as the channels, and the dividers between the channels are removed by timed TMAH etching.

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